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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,898	04/16/2004	Hiroshi Hasegawa	10873.1432US01	2218

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HAMRE, SCHUMANN, MUELLER & LARSON P.C.
P.O. BOX 2902-0902
MINNEAPOLIS, MN 55402

EXAMINER

WON, BUMSUK

ART UNIT PAPER NUMBER

2879

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/826,898	Applicant(s) HASEGAWA ET AL.	
	Examiner Bumsuk Won	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Trinchero (EP 0 889 500) which is Applicant's admitted prior art.

Regarding claim 1, Trinchero discloses an electron gun (figure 2) comprising: cathodes (34); a control electrode (36); an accelerating electrode (40); a first focusing electrode (44); a second focusing electrode (46) facing the first focusing electrode via a gap (45); a system for supplying (paragraph 57, line 12, " V_{FOCUS} ") the first and second focusing electrode with equal electric potentials (paragraph 57, lines 9-12); and an anode electrode (48), wherein cathodes, the control electrode, the accelerating electrode, a first focusing electrode, a second focusing electrode, and the anode electrode are disposed in this order (figure 2), and an electron beam passing aperture (figure 4, 47, page 3, lines 17-24) provided in a surface of the first focusing electrode (44) facing the second focusing electrode (46) and a surface of the second focusing electrode facing the first focusing electrode is a single opening (47, page 3, line 18) common to three electron beams.

Regarding claim 2, Trinchero discloses the electron beam passing apertures (figures 2 and 4, 47) provided in both of the surface of the first focusing electrode

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(44) facing the second focusing electrode (46) and the surface of the second focusing electrode facing the first focusing electrode is a single opening common to three electron beams (page 3, lines 17-24).

Regarding claim 5, Trinchero discloses both ends of the single opening (figure 4, 47) in a horizontal direction have a circular arc shape.

Regarding claim 6, Trinchero discloses a cathode ray tube device (figure 1) comprising: a cathode ray tube (figure 1) comprising: an envelope having a front panel and a funnel, and an electron gun (26) inside a neck portion of the funnel, the electron gun comprising: a first focusing electrode (44), a second focusing electrode (46) facing the first focusing electrode via a gap (45), and a system for supplying (paragraph 57, line 12, " V_{FOCUS} ") the first and second focusing electrode with equal electric potentials (paragraph 57, lines 9-12); and a scanning velocity modulation coil (54, 56) provided on an outer surface of the neck portion and near the first and second focusing electrode, wherein an electron beam passing aperture (figure 4, 47, page 3, lines 17-24) provided in a surface of the first focusing electrode (44) facing the second focusing electrode (46) and a surface of the second focusing electrode facing the first focusing electrode is a single opening (47, page 3, line 18) common to three electron beams.

Regarding claim 7, Trinchero discloses an electron gun (figure 2) comprising: cathodes (34); a control electrode (36); an accelerating electrode (40); a first focusing electrode (44); a second focusing electrode (46) facing the first focusing electrode via a gap (45); a system for supplying (paragraph 57, line 12, " V_{FOCUS} ") the first and second focusing electrode with equal electric potentials (paragraph 57, lines 9-12); and an anode electrode (48); a prefocus lens (42) formed between the accelerating electrode and the first focusing electrode; and a main lens (page 2, lines 55-56) formed between the second focusing electrode and the anode electrode, wherein cathodes, the control electrode, the accelerating electrode, a first focusing electrode, a second focusing electrode, and the anode electrode are disposed in this order (figure 2), and an electron beam passing aperture (figure 4, 47, page 3, lines 17-24) provided in a surface of the first focusing electrode (44) facing the second focusing electrode (46) and a surface of the second focusing electrode facing the first focusing electrode is a single opening (47, page 3, line 18) common to three electron beams, and the single opening (47) is positioned between a position of the prefocus lens (42) and a position of the main lens (page 2, lines 55-56).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

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the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trinchero (EP 0 889 500) which is Applicant's admitted prior art in view of Matsuo (US 2002/0153825).

Trinchero further discloses the focusing electrode (figure 4, 44) provided with the single opening (47) has a tubular wall surface surrounding the three electron beams.

Trinchero does not disclose a hole is provided in lateral surface portions in the wall surface that intersect a horizontal axis.

Matsuo discloses a focusing electrode (figure 4, 27) used in an electron gun (figure 1) having holes (61) provided in lateral surface portions in the wall surface that intersect a horizontal axis, for the purpose of preventing a velocity modulation magnetic field generated by the velocity modulation coils from interfering with a deflection magnetic field (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have holes provided in lateral surface portions in the wall surface that intersect a horizontal axis disclosed by Matsuo in the electron gun disclosed by Trinchero, for the purpose of preventing a velocity modulation magnetic field generated by the velocity modulation coils from interfering with a deflection magnetic field.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trinchero (EP 0 889 500) which is Applicant's admitted prior art in view of Takekawa (US 2002/0079820).

Trinchero discloses all of the claimed limitations except for the vertical width of the single opening near positions through which the three electron beams pass is smaller than that at the other positions.

Takekawa discloses a focusing electrode (figure 2A) used in an electron gun (figure 1) having a vertical width of opening near positions (G3-12) through which the three electron beams pass is smaller than that at the other positions (G3-11), for the purpose of minimizing a vertical dimension of a region for passing the electron beam (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a vertical width of opening near positions through which the three electron beams pass is smaller than that at the other positions disclosed by Takekawa in the electron gun disclosed by Trinchero, for the purpose of minimizing a vertical dimension of a region for passing the electron beam.

Response to Arguments

Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

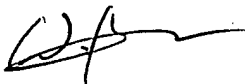
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bumsuk Won whose telephone number is 571-272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bumsuk Won
Patent Examiner



JOSEPH WILLIAMS
PRIMARY EXAMINER